

What is claimed is:

1. An inexpensive method for producing a printed circuit board using a printer configured to facilitate printing at least directly on a copper-clad substrate, comprising the steps of:
 - feeding a copper-clad substrate into the printer;
 - printing an inverse circuit image on the copper-clad substrate;
 - allowing the inverse circuit image to dry;
 - immersing the copper-clad substrate in a tinning solution to adhere a resist mask to exposed, uninked copper to form a tinned circuit image; and
 - etching the copper-clad substrate to remove copper forming the inverse circuit image.
2. The method of claim 1 wherein the printer utilizes water-insoluble ink.
3. The method of claim 1 wherein the printer utilizes India ink.
4. The method of claim 1 wherein an input path for the printer is adjustable to include at least two settings: a first setting to feed paper through a printing process and a second setting to accommodate a copper-clad substrate having a predetermined size.
5. The method of claim 4 wherein the second setting for the input path for the printer to accommodate a copper-clad substrate is further adjustable to accommodate a plurality of sizes of copper-clad substrates.

6. An inexpensive method for producing a printed circuit board using a printer configured to facilitate printing at least directly on a copper-clad substrate, comprising the steps of:

feeding a copper-clad substrate into the printer;
printing an inverse circuit image on the copper-clad substrate;
allowing the inverse circuit image to dry;
metalizing the copper-clad substrate to adhere a resist mask to exposed, uninked copper to form a metalized circuit image; and
etching the copper-clad substrate that has been metalized to remove copper that forms the inverse circuit image.

7. The method of claim 6 wherein the printer utilizes water-insoluble ink.
8. The method of claim 6 wherein the printer utilizes India ink.
9. The method of claim 6 wherein an input path for the printer is adjustable to include at least two settings: a first setting to feed paper through a printing process and a second setting to accommodate a copper-clad substrate having a predetermined size.
10. The method of claim 9 wherein the at least two settings for the input path for the printer include settings to accommodate a plurality of sizes of copper-clad substrates.
11. The method of claim 6 wherein the step of metalizing the copper-clad substrate to adhere a resist mask to exposed, uninked copper includes coating the exposed, uninked copper with at least one of: manganese, chromium, aluminum, iron, cobalt, nickel, tin, zinc, cadmium, palladium, and lead.

12. The method of claim 6 wherein the step of metalizing the copper-clad substrate to adhere a resist mask to exposed, uninked copper includes coating the exposed, uninked copper with an alloy of at least one of: manganese, chromium, aluminum, iron, cobalt, tin, zinc, nickel, cadmium, palladium, and lead.
13. The method of claim 6 wherein the step of metalizing the copper-clad substrate to adhere a resist mask to exposed, uninked copper includes coating the exposed, uninked copper by one of: soldering, electro-plating and electroless plating.
14. A printer configured to print at least directly on a copper-clad substrate to facilitate inexpensively producing a printed circuit board, comprising:
 - an adjustable feeding mechanism for feeding at least a copper-clad substrate into the printer; and
 - a printing mechanism, proximate to the adjustable feeding mechanism, arranged to provide for printing an inverse circuit image on the copper-clad substrate,
 - wherein the inverse circuit image is allowed to dry, the copper-clad substrate is immersed in a tinning solution to adhere a resist mask to exposed, uninked copper to form a tinned circuit image, and the copper-clad substrate is etched to remove copper that forms the inverse circuit image.
15. The printer of claim 14 wherein the printer utilizes water-insoluble ink.
16. The printer of claim 14 wherein the printer utilizes India ink.

17. The printer of claim 14 wherein the adjustable feeding mechanism includes at least two settings: a first setting to feed paper through a printing process and a second setting to accommodate a copper-clad substrate having a predetermined size.
18. The printer of claim 17 wherein the at least two settings include a plurality of settings to accommodate a plurality of sizes of copper-clad substrates.
19. A printer configured to print at least directly on a copper-clad substrate to facilitate inexpensively producing a printed circuit board, comprising:
 - a flat-input feeder for feeding at least a copper-clad substrate into the printer; and
 - a printing mechanism, proximate to the flat-input feeder and arranged to print an inverse circuit image on the copper-clad substrate that is fed into the printer,
 - wherein the inverse circuit image is allowed to dry, the copper-clad substrate is metalized to adhere a resist mask to exposed, uninked copper to form a metalized circuit image, and the copper-clad substrate that has been metalized is etched to remove copper that forms the inverse circuit image.
20. The printer of claim 19 wherein the printer utilizes water-insoluble ink.
21. The printer of claim 19 wherein the printer utilizes India ink.
22. The printer of claim 19 wherein the flat-input feeder is adjustable to include at least two settings: a first setting to feed paper through a printing process and a second setting to accommodate a copper-clad substrate having a predetermined size.

23. The printer of claim 22 wherein the at least two settings include a plurality of settings that accommodate a plurality of sizes of copper-clad substrates.
24. The printer of claim 19 wherein the exposed, uninked copper is metalized to adhere a resist mask using at least one of: manganese, chromium, aluminum, iron, cobalt, nickel, tin, zinc, cadmium, palladium, and lead.
25. The printer of claim 19 wherein the exposed, uninked copper is metalized to adhere a resist mask using an alloy of at least one of: manganese, chromium, aluminum, iron, cobalt, tin, zinc, nickel, cadmium, palladium, and lead.
26. The printer of claim 19 wherein the exposed, uninked copper is metalized to adhere a resist mask using at least one of: soldering, electro-plating and electroless plating.